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CLAIMS

1. An endoscopic instrument (10) having a flexible and elongate main body (11) that houses a vision device (22) for taking images of an organ internal area, comprising a first working arm (21) for the use of tools, characterized in that said main body (10) comprises a second working arm (23) for the use of tools apt to be operated independently with respect to said first working arm (21).
2. The instrument according to claim 1, wherein said main body (11) comprises an annular metal skeleton (12) coated with a rubber material sheath (13).
3. The instrument according to claim 1 or 2, further comprising first handling means of said main body.
4. The instrument according to claim 3, wherein said first handling means comprises one or more tie rods mechanically operated by a user.
5. The instrument according to claim 3 or 4, wherein said first handling means comprises first motion actuating and controlling devices of electronic and/or electromechanical type.
6. The instrument according to any one of the claims 1 to 5, wherein each of said first and second working arm (21, 23) are flexible.
7. The instrument according to any one of the claims 1 to 6, wherein each of said first and second working arm (21, 23) comprises a respective annular metal skeleton coated with a rubber material sheath.
8. The instrument according to any one of the claims 1 a 7, wherein each of said first and second working arm (21, 23) is apt to slide longitudinally with respect to said main body (11), independently the one from the other.
9. The instrument according to any one of the claims 1 to 8, wherein said first and second working arm (21, 23) are apt to move transversally with respect to said

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main body (11), moving away and/or nearing the one with respect to the other.

10       10. The instrument according to any one of the claims 1 to 9, further comprising second handling means of said first and second working arm (21, 23).

11. The instrument according to claim 10, wherein said second handling means comprises one or more tie rods mechanically operated by a user.

12. The instrument according to claim 10 or 11, wherein said second handling means comprises second motion actuating and controlling devices of electronic and/or electromechanical type.

13. The instrument according to any one of the claims 1 to 12, wherein said main body comprises a central body (25), said vision device (22) being connected at the end thereof.

14. The instrument according to claim 13, wherein said first and second working arm (21, 23) are located on two opposite sides of said central body (25).

20       15. The instrument according to claim 13 or 14, wherein said first and second working arm (21, 23) are connected to said central body by one or more annular mechanisms (30), each of said mechanisms being apt to rotate about said central body (25).

25       16. The instrument according to claim 15, wherein each of said annular mechanisms (30) is made with an elastically connected mesh structure.

17. The instrument according to any one of the claims 1 to 16, wherein said vision device (22) comprises a camera.

30       18. The instrument according to claim 17, wherein said camera is of digital type.

19. The instrument according to any one of the claims 1 to 18, wherein said vision device comprises one or more lenses.

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20. The instrument according to claim 19, wherein each of said lenses is apt to be handled so as to vary its tilt with respect to the vision device.

21. The instrument according to claim 20, comprising  
5 two tiltable lenses.

22. The instrument according to any one of the claims 19 to 21, comprising means for adjusting the position of said lenses.

23. The instrument according to claim 22, wherein  
10 said adjusting means are of mechanic type, comprising a tie rod system operable by a user.

24. The instrument according to claim 22, wherein said adjusting means are of electromechanical and/or electronic type.

25. The instrument according to any one of the claims  
15 1 to 24, further comprising means (40) for processing and visualizing the images taken.

26. The instrument according to claim 25, wherein  
20 said processing and visualizing means are apt to provide stereoscopic images of the area taken.

27. The instrument according to any one of the claims 1 a 26, further comprising means for monitoring its position with respect to said organ.

28. The instrument according to claim 27, wherein  
25 said monitoring means comprises one or more signal transmitters positioned on said main body and one or more external receivers of said signals, said received signals being representative of the position of the instrument.

29. The instrument according to claim 28, wherein  
30 said transmitters comprise one or more magnetic field coils.

30. The instrument according to claim 28 or 29, wherein said transmitters comprise one or more transponders.

31. The instrument according to any one of the claims  
35 1 to 30, further comprising means for controlling frictions between the instrument and said organ.

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32. The instrument according to claim 31, wherein said means for controlling frictions comprises one or more pressure and/or force sensors.

5 33. The instrument according to claim 32, wherein one or more of said sensors is of piezoelectric type.

34. The instrument according to claim 32 or 33, wherein one or more of said sensors is of membrane type.

10 35. The instrument according to any one of the claims 27 to 33, further comprising means for graphically representing said position of the instrument with respect to the organ and said frictions.